

Forest Skeleton

We stand at the viewpoint in the Arabuko-Sokoke Forest. It is the largest area of tropical coastal forest in Kenya and a biodiversity hotspot with species that only exist in this forest. Millions of years ago the 420 kilometre squared area was part of a massive forest which stretched from present day Somalia in the north all the way down the east coast of Africa to what is now Mozambique in the south. Over hundreds and thousands of years the climate changed, causing the spread of the desert in the north. Together with an increase in human population the forest slowly shrunk to a fraction of its former size. One of the tiny islands of this mega forest that is left is the Arabuko-Sokoke Forest. Through the shrinking of the habitat a concentration of species in this forest occurred that only can be found there. One of the most prominent species which is endemic to only this area is the *Golden Rumped Elephant Shrew*. It is a peculiar rodent which is about 30 cm high, 50 cm long and has gold-brown hair on its leathery rump. The light color is to suggest to predators that the end is in fact the front. The predator attacks the bottom of the rodent and instead of finding a soft head, encounters a hard bum.

The viewpoint is on a hill, or raised area in the forest and I can look down onto a vast green bed of leaves. On the horizon I can see the sea, but between me and the horizon there is only tree canopy. Dusk is coming and the sun slowly fades. With the light getting low the sound level rises. Sounds are steaming up from the forest below me. The crickets start first. Initially I can identify single sources of sound starting with a high pitched chirping. It is a regular rhythmic sound with variations in pitch and volume. Soon the forest starts vibrating with the sounds of the crickets. Then a bushbaby, a small nocturnal rodent living in trees, gives a solo from the far left with its baby-like cries, which can sound like excited laughs. I feel like the conductor of an orchestra, standing on top of and looking down into the forest and its musicians. More and more sounds come up. A wood owl calls with a high „who“, which sounds as if it is surprised. It is answered by a with a low and short „uh“ by a companion. More and more animals reveal their presence in the forest. Birds make warbling solos and monkeys shout out. From further away I hear voices and musical beats, maybe a radio has been switched on or a taxi minibus turns up its sound system to attract more customers. The music fades again. I have the feeling sound waves rise from the forest and lie now like a thick blanket on top of the trees.

After 20 minutes it is dark and Willie Ng'anda, our guide through the forest, comes up to me. He says we should leave, but starts telling me about the different animal calls we have heard. We start to talk about the condition of the forest. For me, especially after this noisy experience, it presents itself like a vital biotope, with a dense plant and tree network and a lively animal population. But Willie had a different impression, he spoke of a forest skeleton. On the

outside the forest appears intact but under the green blanket it is different. For many years big, old trees have been harvested from the forest. Especially in the colonial period tall, old and straight hardwood trees were popular and valuable. *Muhuhu* and *Mbama Kofi* tree stocks are almost gone, only the crooked ones survived as they could not easily be used for straight planks. And these days even the smaller hardwood trees are taken out for they make good carvings to serve the market of African artworks.

Arabuko-Sokoke Forest, a forest skeleton resting on the bones of crooked hardwood trees. From the outside it seems like an intact indigenous forest but from the inside it is hollow. The traces of the past are visible in its appearance. And the past shaped the socio-biological assemblage in a particular way.

Planting and Dis-planting

In European colonial ideology plants were instrumentalized to execute colonial power, supporting an imperialistic worldview and as agents in political endeavours. This period altered and effected the networks of people and plants and established dominant hierarchies in their relationships.

The anthropologists Mastnak, Elyachar, Boellstorff refer in their essay “Botanical Decolonization: Rethinking Native Plants”¹ to the writings of Francis Bacon, and English states man from the 17th century, and his ideas about the „New World“² to understand the established power relations. In his imperial cosmology colonization was an operation of planting and dis-planting as opposed to the military act. Colonization entailed the uprooting of indigenous plants as well as peoples. Hence colonial planting was rooted in conquest of land and soil.

“Bacon advised colonialists to learn about the environment and subdue it. They were to identify useful plants that grow „ in a country of plantation“, extract timber from the woods and minerals from the earth, build mills upon streamers and make salt in bays. [...] Additionally and crucially, Bacon recommended colonists to import plants that „grow speedily“, do not „ ask to much labour“ and are nutritious.”³

Bacon’s idea of gardening was an integral part in his imperial worldview. He refers to colonies as plantations, a place to serve the needs of European settlers. This dominance was justified by a scientific, economic and even religiously informed cause. Colonization offered the opportunity to retrieve the knowledge of nature, mankind had lost by having to leave the Garden of Eden.⁴

Botanical gardens were established all over the colonies and in the centres of empires to research, explore and analyse the economical value of plant species.⁵ But also to develop a biological system to categorize and order species and gather scientific knowledge. Expanding the scientific knowledge over nature meant expanding political rule and human power over nature.⁶

Planting and dis-planting of people, plants and animals can be seen as reshaping and modelling an ecosystem according to the European vision of a world that serves the needs of humankind. Colonization was a multi-species project that resulted in a vast traffic of plants as well as animals and people.

In that sense the European imperial interventions shaped the ecological networks in profound ways. They rejoined ecosystems that had been apart from each other since the splitting of the Mega continent Pangea 200 Million year ago.⁷

Colonialism established a mindset that supported and even encouraged a domination of humans over non-humans, that resulted in severe changes in the biotic constellation of forests.

Naming

“Research in Sylviculture must be conducted in the Colony and in the forest... it is the most important branch of this Department’s duties.”⁸

Starting from the colonial expansion in the New Americas and the West Indies the necessity to classify and research Botany and Sylviculture (forestry) in the Colonies was also present in the colonial project in African endeavours of the 18th and 19th century.

Botanical research fused the fields of Capitalism and Science, as natural resources in the form of plants were profitable and therefore important material in the expansion of the British empire. “Eighteenth-century political economists [...] thought that the exact knowledge of nature [...] was key to amassing national wealth, and hence power”.⁹

In 1735 the Swedish Botanist Carl Linnaeus published *Systema Naturae* followed by *Species Plantarum* in 1753 where he invented binominal nomenclature, the modern system of naming and classifying organisms. According to Linnaeus the scientific name, the common naming and classifying of plants today, consists of a generic name (genus) followed by a specific name (species).¹⁰

Linnaeus’ system is useful in investigating and researching nature. It is universally applicable and levels research on a common basis. However naming as well was a political method that accompanied the European expansion and

colonization and was hence a tool in the structural establishment of an unequal power relationship.¹¹ This can be referred to as “linguistic imperialism”¹², when a language of the dominant power is transferred to other people.¹³ The naming of the environment and the manner in which different cultures describe their surrounding, is a social process which reveals how humans relate to the things around them. The human-nature relationship, which is biased by a euro-colonial ideology in which the human is put over nature, is therefore intrinsic in the naming process of this culture. As Elisabetta Lonati, the linguistic and literary scholar succinctly states: “Naming ultimately was to know, to possess and to master nature.”¹⁴

The *Muhuhu* is one of the most durable timbers in the Arabuko-Sokoke Forest. I have seen stumps harvested 100 to 70 years ago which appear as if they have been cut just a few years ago. The wood is too hard to be eaten by termites and fungi need a long time to create soil out of it. Its botanical name is *Brachylaena Hutchinsii*, named after D.E. Hutchinson, a British colonial forester. Although commonly called by its Kiswahili name *Muhuhu*, the guides in the forest will tell you its botanical name, referring to, and perpetuating, an established history of power.

The Arabuko-Sokoke Forest was shaped by the colonial period. Its appearance must have changed drastically when all the big old hardwood trees were taken out in vast quantities. One section of the forest is called *Mixed Forest*. It was explained to me that it was the *Mbamba Kofi Forest* before, with the Mbamba Kofi as the main tree species. The big hardwood trees of that species and others were strongly harvested. In that case the name did not apply to the

vegetation any more and was changed. With an impact like that, the socio-biological composition of the forest must have been impacted by the interference of the colonial arrival. Not only through their interventions but also through the presence of a new power. It changed in the power relations in that network.

The intense harvesting of trees and other forest produce, like bark and leaves, from the Arabuko-Sokoke Forest for vast economic export, changed the assemblage of the forest in a way that was not experienced in that manner before. The human-forest relationship that was established before the British colonial intervention was also in some ways a relationship of purpose which entailed the harvesting of trees for economic and private use. Statements in the *Catalogue of Specimen Boards of Kenyan Timber* show that peoples like the “Arabs on the East African Coast and in Zanzibar” liked to use certain types for building doors and furniture.¹⁵ Other trees were used by the local communities on the coast to build *Dhows*, a common type of fishing boat. This suggests that there was an established trade in wood and a usage for forest produce. But, prior to the colonial period the human-plant relationship was not influenced by an extensive economic pressure which dictated the life of societies who are forced to live in a world order determined by global capitalism. The political scientist and economist Stefan Mair speaks of a “fundamental change in African political and economic systems and existing social structures” through the colonisation of Africa.¹⁶

The colonial cosmology places the human above the non-human. It is a starting point to a global human-centric worldview that established a convenient hierarchy to serve the capitalist system and made it easy and comfortable

to exploit the forest as an economic resource. Naming and classifying are systems that help establish and perpetuate this unequal power relationship and make it possible to see nature merely as an object to be exploited.

Colonialism defined nature as a product and its resources as goods to serve the human. It influenced the human – nature relationship, where the human objectifies nature and has power over it. I would argue this is still the common mindset with which capitalist societies of the North relate to nature.

The colonization of Kenya changed the socio-biological assemblage of the Arabuko-Sokoke Forest in a severe way. Can we understand humankind as a geomorphic forces similarly to the one, that turned the forest into a biodiversity hotspot millions of years ago?¹⁷ Can we imagine the extend of the impact the colonial period had on the environment as similarly severe as the ecological events that shaped the forest? If so, that would suggest seeing the human as a ecological force, like the concept of the Anthropocene suggests.¹⁸ Although this is perhaps a very human-centric idea as well, it does allow us to rethink the relationship between humans and the natural world not only as a dominant but also as an immanent part of an interrelating network where actions have effects on other participants in the network and responsibility has to be taken.

At the viewpoint in the Arabuko-Sokoke Forest I saw a lush forest, I heard a lively forest. This experience transported my idea of a natural space. Only through the story of Willie Ng'anda could I understand my biased notion of nature. In some ways this experience revealed to me my own colonial mindset. It showed that the colonial period left traces in myself, these are not physically but they shape the way I think and the way I perceive a place.

- 1 Mastnak Tomaz, Julia Elyachar, Tom Boellstorff. "Botanical Decolonization: Rethinking Native Plants." In: *Environment and Planning D: Society and Space* (32). London: Sage Publishing. 2014. pp 363 – 380
- 2 Bacon's colonial cosmos reflects concretely on the British colonial expansion towards the Americas in the 17th century. Non the less I understand his ideas as a basic concept of an imperialist world-view from that time, which shaped the notions of coming British colonial endeavours towards the African continent. Therefore I see him as a relevant example to mention in the context of a Kenyan forest.
- 3 Mastnak Tomaz, Julia Elyachar, Tom Boellstorff. "Botanical Decolonization: Rethinking Native Plants." In: *Environment and Planning D: Society and Space* (32). London: Sage Publishing. 2014. p 365
- 4 Ibid. pp 363 – 369.
- 5 Brockway, Lucile H. "Science and the Colonial Expansion: The Role of the Royal British Botanic Gardens." In: *American Ethnologist* 6 (3). pp 449-465
- 6 Mastnak Tomaz, Julia Elyachar, Tom Boellstorff. "Botanical Decolonization: rethinking native plants". In: *Environment and Planning D: Society and Space*(32). London: Sage Publishing. 2014. pp 363 – 369
- 7 Slyuter Andrew. *Colonialism and Landscape. Postcolonial Theory and Applications*. Lanham: Rowman and Littlefield Publishers. 2001. p 3
- 8 „Memorandum on the Resolution passed at the Empire Forestry Conference, 1920.“ National Archives of Kenya
- 9 Schiebinger, Loanda. *Plants and Empire* (Harvard University Press, 2004), quoted in: Lonati, Elisabetta. "Plants from Abroad: Botanical Terminology in 18th-century British Encyclopaedias." In: *Trasmirazioni e Trasferimenti: vicende naturali e vidende umane nella storia della piante* (10). Hrsg. Emanuele Monegato, Agnese Visconti, Altre Modernita. Milan. 2013. p 21
- 10 *Biological Nomenclature*. bio.slu.edu. <http://bio.slu.edu/mayden/systematics/bsc420520lect2.html> (Accessed March 2019)
- 11 Orlow, Uriel. *Theatrum Botanicum*, Berlin: Sternberg Press. 2018. p 21
- 12 Schiebinger, Loanda. *Plants and Empire* (Harvard University Press, 2004), quoted in: Lonati,

- Elisabetta. "Plants from Abroad: Botanical Terminology in 18th-century British Encyclopaedias." In: *Trasmirazioni e Trasferimenti: vicende naturali e vicende umane nella storia della piante (10)*. Hrsg. Emanuele Monegato, Agnese Visconti, Altre Modernita. Milan. 2013. p 22
- 13 Knowles, Gerald. *Englisch Language Imperialism*. Britannica.com. <https://www.britannica.com/topic/language-imperialism-1016976> (Accessed March 2019)
- 14 Lonati, Elisabetta. "Plants from Abroad: Botanical Terminology in 18th-century British Encyclopaedias." In: *Trasmirazioni e Trasferimenti: vicende naturali e vicende umane nella storia della piante (10)*. Hrsg. Emanuele Monegato, Agnese Visconti, Altre Modernita. Milan. 2013. p 22
- 15 "Catalogue of Specimen Boards of Kenyan Timber. *Natural History Museum Nairobi*. "National Archives of Kenya.
- 16 Mair, Stefan. "Ausbreitung des Kolonialismus." Bpb. de. 2005. <http://www.bpb.de/internationales/afrika/afrika/58868/kolonialismus?p=all> (Accessed March 2019)
- 17 Mastnak Tomaz, Julia Elyachar, Tom Boellstorff. "Botanical decolonization: rethinking native plants". In: *Environment and Planning D: Society and Space (32)*. London: Sage Publishing. 2014. p 363
- 18 The concept of the Anthropocene, which is about declaring a geological era to the impact of the human on the planet, is entailed here. For further reading about the Anthropocene, see Steffen, Will, Paul J. Crutzen and John R. McNeill. The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature? In: *Ambio*. Volume 36, No. 8. Royal Swedish Academy of Sciences 2007. 2007 or Carrigton, Damian. The Anthropocene epoch: scientists declare dawn of human-influenced age. *Theguardian.com*. <https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth> (Accessed March 2019)